

REMARKS

Claims 1 and 3-10 were pending in the application. Claim 6 is amended. Favorable reconsideration and allowance of this application is respectfully requested in light of the amendments and the foregoing remarks.

1. In the Specification

The Examiner objected to the specification as failing to provide proper antecedent basis of the claimed subject matter. Specifically, the Examiner indicates that there is no reference in the specification to the phrases “generally adjacent” (claim 1), “generally continuous line” (claims 1 and 4), and “closely adjacent” (claims 4 and 6). Applicant has amended paragraph 17 to provide the proper antecedent basis for the above noted phrases, and that is clearly supported in Figure 1. No new matter is added. Accordingly, withdrawal of the objection is respectfully requested.

2. Rejections under 35 U.S.C. 103(a)

Claims 1 and 3-10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 20030217537 to Schlessner et al. (herein “the Schlessner et al. publication”) in view of U.S. Patent No. 5,715,893 to Houck (herein “the Houck patent”).

Claim 1 recites a method for providing flotation to a wing of an agricultural seeder relative to the ground, the method comprising the steps of providing a wheel-supported main frame adapted to be removably affixed to a tractor for movement along the ground in a direction of travel; providing a first elongated wing with an inner end and an opposing outer end, the first wing having a longitudinal axis generally perpendicular to the direction of travel and a center point along the longitudinal axis generally equidistant from the inner

and outer ends; providing a first plurality of seeders affixed to the first wing and generally regularly spaced along the longitudinal axis thereof; providing a first elongated support arm pivotally affixed at one end to the main frame and at the other end to the center point of the first wing; providing a first hydraulic cylinder interconnecting the first wing and the main frame such that the first cylinder can raise the first wing to a transport position and lower the first wing to a working position in contact with the ground; providing a second elongated wing with an inner end and an opposing outer end, the second wing having a longitudinal axis generally perpendicular to the direction of travel and a center point along the longitudinal axis generally equidistant from the inner and outer ends, said inner ends of said respective first and second wings being generally adjacent to each other in the working position and form a generally continuous line across the width of the seeder; providing a second plurality of seeders affixed to the second wing and generally regularly spaced along the longitudinal axis thereof; providing a second elongated support arm pivotally affixed at one end to the main frame opposite the point at which the first support arm is affixed and at the other end to the center point of the second wing such that the first and second wings are on opposite side of the main frame; providing a second hydraulic cylinder interconnecting the second wing and the main frame such that the second cylinder can raise the second wing to a transport position and lower the second wing to a working position in contact with the ground; lowering the first and second wings to the ground by activating the respective first and second hydraulic cylinders; and locking the first and second hydraulic cylinders in the lower position whereby the first and second wings float about the point at which the first and second support arms are pivotally affixed to the center points of the

respective first and second wings.

The Schlessner et al. publication discloses a mower for cutting vegetation, and is not related in any manner to a seeder (See Abstract). Moreover, the Schlessner et al. publication does not disclose a hydraulic system configured to lower the wings from a raised position for transport to a lowered operative position in contact with the ground. The disclosed mower decks would be incapable of operating if in contact with the ground. Rather, the Schlessner et al. hydraulic control system is configured to pivot the wings laterally about their inner ends between an extended position and a folded back position. (See Figs. 1 and 8). Yet, even assuming that there is motivation to combine the Schlessner et al. publication with the Houck patent, the combination of cited references does not disclose the steps of providing first and second hydraulic cylinders interconnecting the first and second wings, respectively, and the main frame such that the first and second cylinders are capable of raising the respective wings to a transport position and lowering the wings to a working position in contact with the ground. Furthermore, the combination of cited references does not disclose the step of locking the first and second hydraulic cylinders in the lower position whereby the first and second wings float about the point at which the first and second support arms are pivotally affixed to the center points of the respective first and second wings.

The Examiner alleges, *inter alia*, that the Schlessner et al. publication discloses elongated support arms 18A and 18B pivotally affixed at one end to a lateral side of a main frame and at the other end to the center point of the alleged wings 16A and 16B, respectively (see page 3 - Office Action dated September 8, 2005). The Examiner further

alleges that the first and second hydraulic cylinders 52 interconnect the wing 16A and the main frame 14 (*Id.*). However, the Schlessner et al. publication does not disclose that the alleged cylinders are interconnected between the alleged wing 16A, 16B and the mainframe 14. Rather, the cylinder 52 is interconnected between the wing 16A, 16B and support arm 18A, 18B. The spring biased cylinders 52 are only generally shown just mounted on the support arms 18A and 18B.

Moreover, when the hydraulic cylinders are locked in place, *the alleged hydraulic cylinders 52 are not capable of allowing the first and second wings to “float about the point at which the first and second support arms are pivotally affixed to the center points of the respective first and second wings* as recited in claim 1. In fact, the Schlessner et al. publication teaches away from a floating wing section as recited in claim 1 for the foregoing reasons. The Schlessner et al. publication discloses that the alleged cylinders 52 “coupled in parallel with each other and preload spring 54 apply a selected lifting force to the distal end of each cutter head 16A and 16B ... the amount of preload applied to the upper hydraulic cylinder 52 using spring 54 adjusts the lifting force applied to the distal end of a respective cutter head 16A or 16B using the lower hydraulic cylinder 52” (paragraph 41). Fig. 2 shows that each alleged wing 16A and 16B is pivotally connected to rotate about an inner end at the alleged mainframe 14 (See Fig. 2). Thus, when either cylinder 52 is locked, the alleged wings 16A and 16B are not capable of pivoting about the center point of the wing pivotally supported at one of the support arm as recited.

A review of the Houck patent fails to correct these deficiencies. Rather, the Houck patent discloses a frame system that permits the wings to be lifted and rotated into a fore-

and-aft position for convenient transport. It requires three sections – a center section 30 that is not part of either of the wings is generally fixed, but raised separately from the lower working position. Also, the alleged wing section are not shown pivotally supported at their center point. Still also, the Houck frame system would not function in accordance with the intended purpose if the two wings were long enough to have their inner ends closely adjacent each other, as recited in claim 1.

Thus, the combination of cited references does not teach or suggest the recited limitations of the claimed invention. Accordingly, reconsideration and allowance of claim 1 is respectfully requested.

Claim 3 depends directly from claim 1 and is believed allowable for the same reasons that claim 1 is believed allowable.

Claim 4 is believed patentable over the combination of cited references for similar reasons to those described above in regard to claim 1. The combination of cited references does not disclose or suggest an agricultural seeder having elongated support arms each pivotally affixed at one end to the first lateral side of the main frame and at the other end to the center point of the respective wings, a hydraulic cylinders interconnecting the respective wing and the main frame such that activation of the cylinder can raise the respective wing to a transport position and lower the respective wing to a working position in contact with the ground, the respective inner ends of the wings being closely adjacent to each other when in the working position, forming a generally continuous line across the width of said seeder, and the hydraulic cylinders having a lock thereon to hold the respective cylinder in the working position whereby when in the working position, the

respective wing floats relative to the ground. Reconsideration and allowance of claim 4 is respectively requested.

Claim 5 depends directly from claim 4 and is believed allowable for the same reasons that claim 9 is believed allowable.

Claim 6 is amended to include the believed patentable subject matter recited in claim 1. Claim 6 as amended recites an agricultural seeder having a main frame with first and second opposing lateral sides and first and second wings pivotally attached thereto and *a hydraulic control system that pivots the wings between a raised transport position and a lowered operating position in contact with the ground*, the improvement comprising the first and second wings, each with a longitudinal axis and a center point along their respective longitudinal axes, are pivotally attached to respective lateral sides of the main frame by a structure including first and second substantially identical *support arms each having a first end pivotally attached to the main frame and an opposing second end pivotally attached to the respective wing at the center point such that the wings float about the pivotally attached second end relative to the ground*, and each wing having an inner end and an outer end such that in the working position the respective longitudinal axes of the two are generally aligned, with the inner ends closely adjacent to each other thereby forming a generally continuous line along the width of the seeder.

The Schlessner et al. publication discloses a mower for cutting vegetation, and is not related in any manner to a seeder. However, even assuming there is motivation to combine the cited references, the Schlessner does not disclose a hydraulic control system that pivots the wings between a raised transport position and *a lowered operating position*

in contact with the ground. The disclosed mower would be incapable of operating as intended if in contact with the ground. Moreover, the Schlessner et al. patent does not disclose where the *support arms each have a first end pivotably attached to the main frame and an opposing second end pivotably attached to the respective wing at the center point such that the wings float about the pivotally attached second end relative to the ground.* Rather, the alleged wing 16A is pivotally attached at one end to a mainframe (See Fig. 2). Thus, the alleged wing 16A disclosed in the Schlessner structure is incapable of operating and floating about the pivotally attached end of support arm attached at the center point of the wing as recited in claim 6.

Claims 7-10 depend either directly or indirectly from claim 6 and are believed allowable for the same reasons that claim 6 is believed allowable. Claims 7-10 may also recite patentable subject matter in addition to that recited in claim 6.

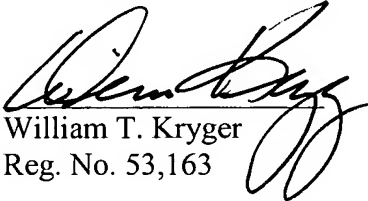
CONCLUSION

It is submitted that claims 1 and 3-10 define patentable subject matter. A Notice of Allowance is therefore respectfully requested.

No fee is believed due with this communication. Nevertheless, authorization is given to charge any other additional fees or credit any overpayment in connection with this or any future communication to Deposit Account No. 50-1170.

The Examiner is invited to contact the undersigned by telephone if it would help expedite matters.

Respectfully submitted,



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